



What Is The Cloud?

The cloud explained in a simple non-techy, non-jargony way

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Cast your mind back to 25 years ago. Brit Pop was ruling the charts, X Factor didn't exist, a lot of people were getting excited about New Labour and this thing called "the internet" was really starting to take off.

Just a couple of years beforehand Tim Berners-Lee had invented a new shiny bit of technology called the World Wide Web, that he claimed would change the world as we knew it. But most of us didn't really understand what it meant or how it would affect our lives.

Today, it's hard to imagine a time when the internet wasn't connecting us to people all over the world and giving us access to all kinds of information on small hand held devices. It's become such an intrinsic part of everyday life that it can send whole organisations into a panic if the connection is slow. And it's been the cause of many a family feud.

What was once shrouded in mystery is now something we all take for granted, and it's practically unheard of to find someone who hasn't used it at least once.

But as the world evolves and technology is constantly changing, with it there's always something new to get us scratching our heads and feeling out of our comfort zones. Today, the new (ish) and somewhat intimidating kid on the block is the cloud.

It's no surprise really: even the name is fluffy, vague and nebulous; something abstract and hard to pin down. It's become one of those buzzwords that techy types use to assert their status as computer gurus, while everyone else is wondering what on earth they're talking about. "Your data is stored in the cloud," they'll say. Seeing as clouds are wispy things that float around in the sky, it's no wonder that so many of us feel that it might not be such a good idea.

If you're one of the many who finds the concept of cloud computing a little difficult to get your head around, you're not alone. And (because we're nice) we thought we'd put together a guide for you, which will explain all those cloud related things you were probably wondering about but felt too embarrassed to ask.



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So, what is THE CLOUD really?

When people say your data is stored in the cloud, they don't really mean it's floating around in heaven surrounded by cherubs and other celestial beings. It isn't just one place that's home to millions of invisible computer files, it's lots of different places that are all connected via the internet.

The term refers to a collection of services and softwares that, instead of taking up massive amounts of storage space on your computer, can be accessed by web browsers like Google Chrome and Firefox.

All the information is held in remote servers and server farms – a fancy way of saying data centres – so you don't even need a powerful computer to be able to access it. In essence, cloud computing simply means computing that takes place over the internet.

It's about taking files and services and moving them outside the confines of internal hard drives. They are moved into shared systems via the web. All services are then accessed and worked on over the internet and often paid for on a "pay as you go" basis, with the whole infrastructure managed by an external cloud provider. Cloud networks are a combination of different groups of servers and service providers who take care of data processing, storage and software updates.

The really great thing about the cloud is that you don't have to be tied down to using just one device to access your important files. Whereas before it was invented, work meant leaving the office at 5pm and not accessing your data until 9am the next morning, you can now work via your mobile phone (and lots of other devices) from anywhere in the world with an internet connection.

While this clearly has issues in terms of work/life balance and the ability to switch off, it's fantastic for productivity and flexible working. It also allows numerous people to work together on the same document, improving collaboration and team building.

You've probably already used cloud technologies numerous times already without even realising. Apps like Spotify, Google documents, social media and online banking services are all cloud based, and you can use them all on mobile devices while you're going about your daily business.



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So why move your business to the cloud?

Most often, businesses make the decision to move to cloud based computing for financial reasons.



Because everything is stored remotely, there are huge savings to be made in terms of hardware equipment, which ordinarily becomes outdated quickly and needs to be upgraded every few years.

This also makes cloud solutions highly scalable, allowing your business to grow organically without having to splash out a fortune on a state of the art PC set up. There's also the added advantage of being able to outsource your IT needs to specialist teams who can manage your systems, deal with any issues and monitor your network remotely. Meaning fewer staff resources too.

That, for many, is the bottom line. Moving to the cloud has the potential to save you A LOT of money.

Sounds good, right? Well, in most cases it is. But like most things, it comes with its bad points too. Firstly, accessing your documents via the cloud is only quick and easy if your internet connection can keep up. If your broadband is slow or you're in a bad area you're likely to find it pretty frustrating, so if you are planning on working from home often it's worth investing in a decent internet service.

Secondly, and more importantly, because all your data is kept online it's never going to be as safe as it would be if it were locked away in a cast iron filing cabinet all night. Cyber crime is big business, and with "how to hack" guides and DIY hacking kits available to pretty much anyone these days it's absolutely essential that you have bullet proof security measures in place. Think carefully

about what information you need to access and where it should be stored. Invest in some sturdy firewalls and other anti-virus software and make sure your staff are fully trained in internet safety. And always, always back up your data to make sure you have more than one copy if things should go wrong.



But it's not all doom and gloom when it comes to security. The cloud is a fantastic way to store data that's not sensitive (music, videos, photos, films etc) and a lot of the big players are working tirelessly to keep even the super confidential stuff safe too. Google encrypts all messages now, as does WhatsApp, Twitter, Facebook and numerous others. And with a hotshot IT support company on your side monitoring your network 24/7 and keeping your files on lockdown the worry will be significantly reduced.

Where it all began

Although you'd be forgiven for thinking that the cloud was the brainchild of a millennial, its history actually dates back way further than that – as far back as the 1950s. Makes sense really; some of the best works of science fiction were written in the 50's, when the world was recovering from WWII and everyone had bright ideas for the future.

Back in those days computers were so huge that you needed a whole room to house just one, and so expensive that they were limited to only the wealthiest and largest of organisations. The idea of multiple users all having their own computer was unheard of because there simply wasn't enough room or money, so companies developed rotas which enabled people to share one computer.

Almost 20 years later, inventor JCR Licklider created the Advanced Research Projects Agency Network, also known as ARPANET, with the dream that in the future we'd all be able to work on files from anywhere in the world. Even though these were both big ideas, they didn't come to fruition until the late 90s, when Salesforce launched one of the first ever applications that could be accessed entirely online. Despite Salesforce's success, it's still taken all this time for cloud computing to become anything close to the norm. But now we're getting there.

How much data can be stored in the cloud?



With all these businesses, charities and individuals storing everything from photos to huge files on the internet, it makes you wonder how much data is currently stored in the cloud, but as a rough estimate it's somewhere around one Exabyte. A techy word that means about the same as 4.2 million Mac Book Pro hard drives.

Of course, the cloud will never be "full", as new capacity is added every day.

Different types of cloud



So now we've got to the bottom of what the cloud is all about, it's also important to know that it can be used in different ways. We know that cloud computing is usually accessed via shared systems that are outside of organisations' own firewalls and managed by external service providers – **this is known as the public cloud**. But there's a private version too, offering the same features and benefits that you'd get in the normal cloud but giving you a higher level of control over your data. Operating within the organisation's own firewall, the private cloud can be managed by their IT support service.

There's also the option of **the hybrid cloud** if you want to dip your toe in without committing to moving everything across to that great bit data centre in the sky. This is a strategy which allows you to combine a good, old-fashioned on-site infrastructure with the many benefits of working in the cloud. For a lot of organisations, it's a great way to test the waters without going all in with the fluffy, virtual environment, and it's great if you want to scale up quickly whilst keeping your business running smoothly.

Cloud computing for small businesses



Moving to the cloud is becoming a particularly popular decision among

small businesses who often lack the time or financial resources to be able to handle their own IT infrastructure. Now, with only an internet connection and web browser, the average business owner has access to all sorts of wonderful software and file sharing options that grow and change to reflect the organisation and its clients.

The hybrid cloud is great for companies and charities who want to keep their sensitive workloads separate from the day-to-day stuff. For example, you might want to still **use dedicated, on site cloud servers for your critical work, combined with a public cloud for non-sensitive information**. This approach can be used in multiple business areas and is commonly used for HR and accounts.



Is **THE CLOUD** for you?

If you're interested in keeping costs to a minimum, flexibility, new technology and a more productive workforce then yes, it probably is. The important thing is to do your research and work with a trusted provider who can make the transition happen smoothly and keep your data safe and secure.

To find out more about how cloud computing can work for your business, get in touch with our team of experts today.



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